



Orange & Rockland
a conEdison, inc. company

LOCAL TRANSMISSION PLANS (LTP)

**ESPWG MEETING
November 21, 2023**

Rollie Mangonon

AGENDA



COMPANY BACKGROUND



LTP ASSUMPTIONS, TOOLS & METHODOLOGIES



DEVELOPMENT OF LTP



**PROPOSED LTP
(UPDATES FROM 2021 LTP)**



QUESTIONS

COMPANY BACKGROUND (Service Territory)



Company Profile:

TO, TOP & TP under NYISO.

TO under PJM.

Subsidiary of Con Edison, Inc.

Existing Circuit Miles:

Transmission (69 kV to 345 kV) :

554 miles

Distribution (4 kV to 34.5 kV) :

3,764 miles

UG Distribution (13.2 kV) :

1,696 miles

Customers Served:

Electric: 304,000 (NY, NJ)

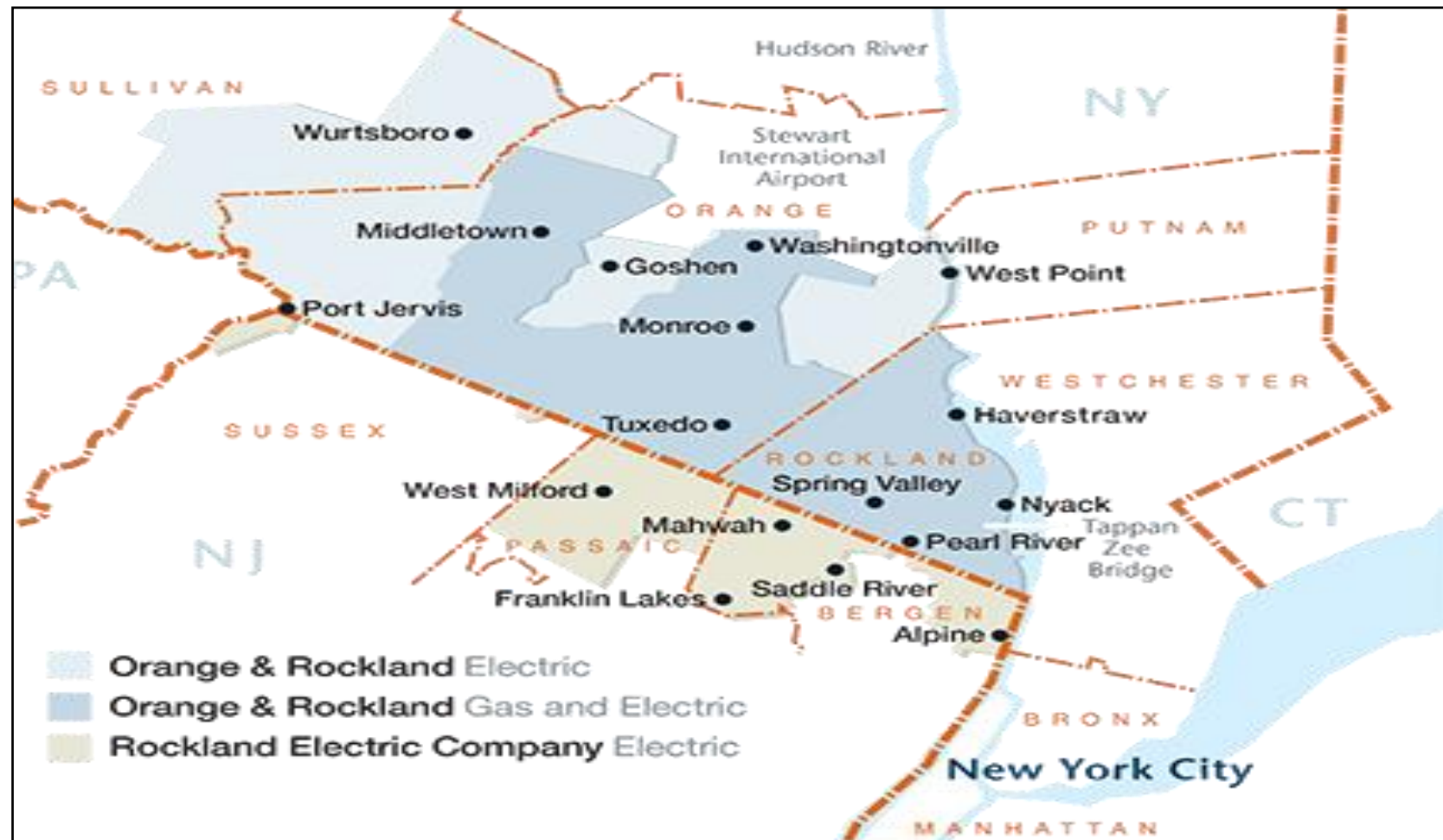
Gas: 135,000 (NY)

All time Peak Demand for electricity: 1617

MW (8/2/06)

Number of employees ~ 1200

Service Territory ~ 1350 sq. miles



TRANSMISSION DESIGN STANDARDS

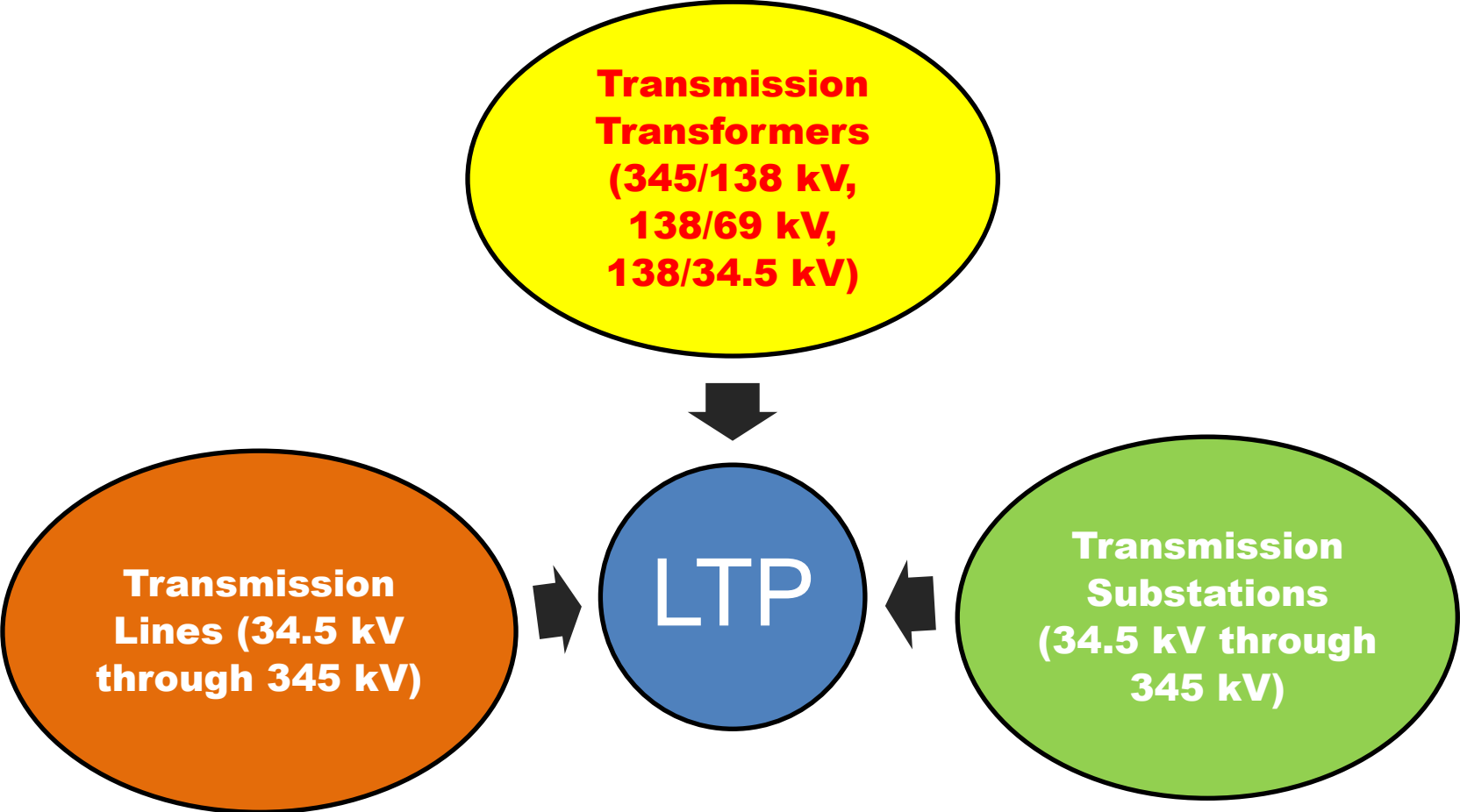
- **THERMAL**

- Normal Operating Conditions:
 - Below Normal Rating of Equipment
- N-1 Operating Conditions:
 - Below Normal Rating of Equipment.

- **VOLTAGE**

- Normal and N-1 Operating Conditions:
 - $0.95 < \text{Nominal Bus voltage} < 1.05$

FACILITIES COVERED BY LTP



LTP ASSUMPTIONS

- **Projects based on the 2023-2027 Five Year Capital Budget.**
- **Load Forecast (10-year Horizon):**
 - 2023 (1600 MW)
 - 2027 (1609 MW)
 - 2032 (1626 MW)

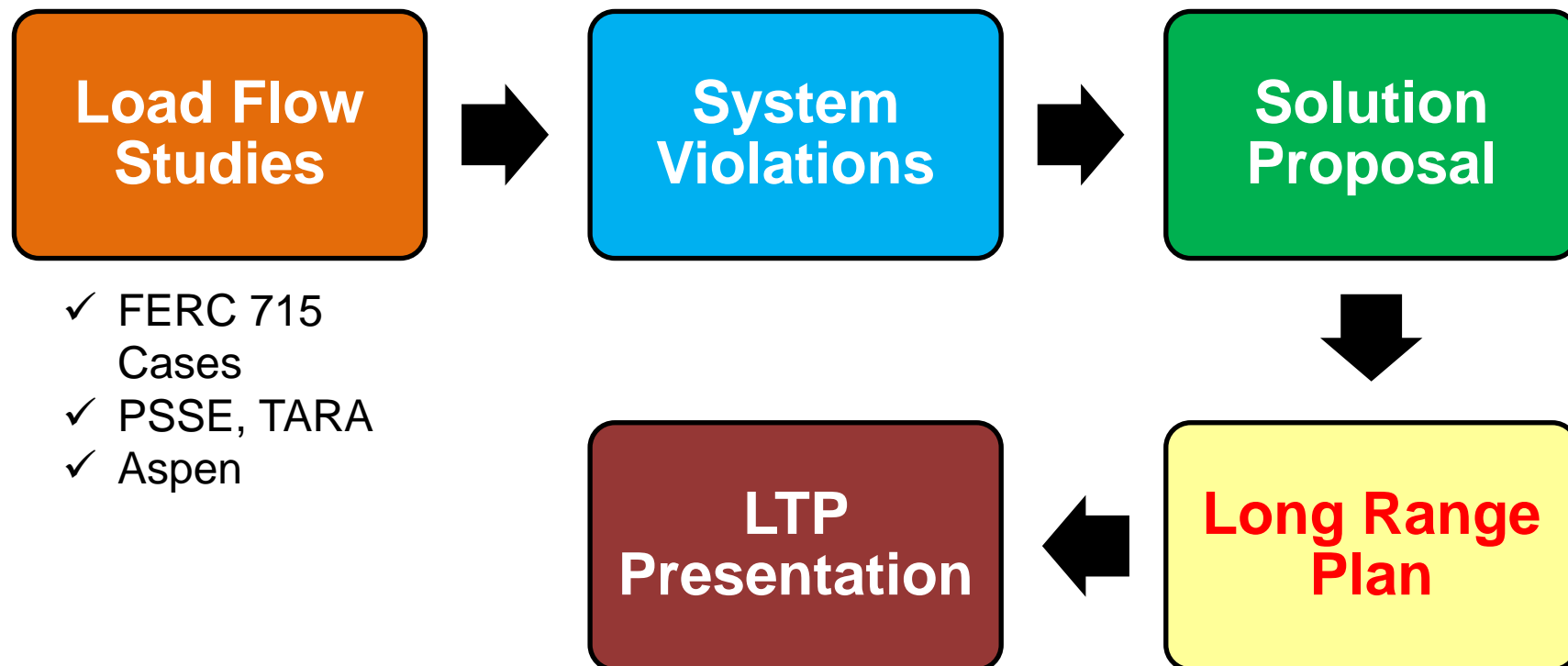
- **Factors Affecting LTP:**
 - Reliability Requirements
 - Changes in Load Forecast
 - DSM/EE
 - Federal and State Programs
 - New Generation (i.e. PV, Wind, Energy Storage, Gas Turbines)
 - Equipment Condition/History

LTP TOOLS & METHODOLOGIES

- **Thermal (PSS/E, TARA)**
- **Voltage (PSS/E, TARA)**
- **Short Circuit (ASPEN)**
- **Equipment Replacements Due to Condition (FIELD INSPECTIONS AND TEST REPORTS)**
- **Equipment Thermal Ratings**

Conductors		Transformer Banks	Substation Terminal Equipment
OH	UG	EPRI'S PT LOAD	<ul style="list-style-type: none"> - NYTO Tie Line Report - Legacy Documents
South Wire	Manufacturer		

DEVELOPMENT OF LTP



DEVELOPMENT OF LTP

- **POSSIBLE MITIGATION FOR CRITERIA VIOLATIONS**

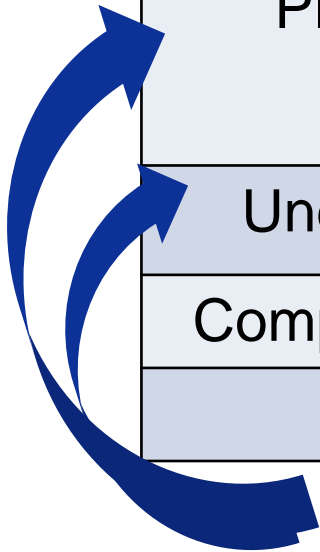
- ❖ Load Transfers
- ❖ Equipment Upgrades
- ❖ New or Reconfiguration of Transmission Lines
- ❖ New Switching Stations with new or reconfigured Transmission Lines
- ❖ Transmission Station Reconfiguration or Upgrade
- ❖ Reactive Power Compensation (Capacitors or Reactors)
- ❖ Short Circuit Remediation/Breaker Upgrade

“FIRM” PROJECTS

- Projects are considered “**FIRM**” if they satisfy the following conditions:
 - ✓ Included in the 2023-2027 O&R Five Year Budget
 - Funds approved by Upper Management
 - ✓ Completed System Impact Study (SIS) and approved Article VII and/or necessary permits approved (if applicable).
 - ✓ Major equipment ordered and/or awaiting delivery.

PROJECT STATUS

PROJECT STATUS	DESCRIPTION
Design	Project approved and budgeted, engineering design/permits underway and, if necessary, SIS and Article VII approval on-going.
Pre-Construction	Major equipment procured and/or awaiting delivery, necessary outages planned, company resources/manpower assigned and if necessary, SIS and Article VII approved and permits secured.
Under Construction	Major equipment delivered and construction underway.
Completed (In-Service)	Project in service.
Withdrawn	Project no longer needed.



“FIRM” Project

PROPOSED LTP

EASTERN DIVISION LOCAL PLANS

GEOGRAPHIC COVERAGE : Rockland County (NY),
Portions of Bergen County (NJ)
DESIGN STANDARD: First Contingency (N-1)

PROJECT DESCRIPTION	IN-SERVICE DATE		Firm	SIS	Article VII	Project Status
	2021 Plan	2023 Plan				
Lovett 345 kV Station (formerly North Rockland 345 kV Station) ¹	May 2024	Dec 2024	Y	Y	N/A	Pre-Const.
Line 705 New UG (138 kV)	Dec 2023	Dec 2026	N	N/A	N/A	Design
Line 51 (138 kV)	Dec 2023	Dec 2024	N	N/A	N/A	Design

¹Included 2022-24 Rate case

PROPOSED LTP

EASTERN DIVISION LOCAL PLANS

PROPOSED TRANSMISSION CAPACITOR BANK INSTALLATIONS (32 MVARs)

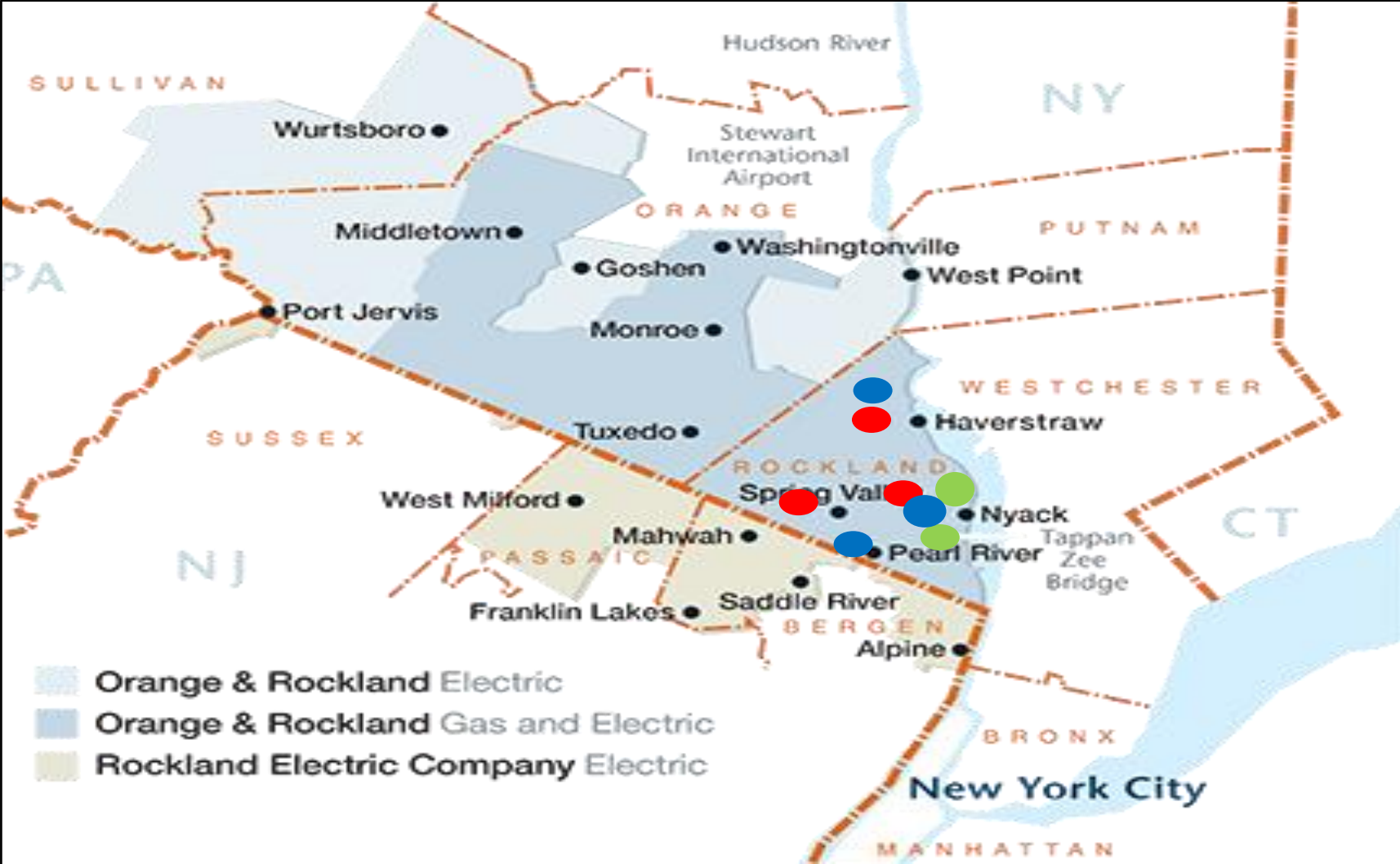
STATION	IN-SERVICE DATE		Firm	SIS	Article VII	Status
	2021 Plan	2023 Plan				
Little Tor	Dec 2023	Dec 2026	N	N/A	N/A	Design
West Nyack (16 MVARs)	Completed (June 2022)	-	Y	N/A	N/A	In-service

PROPOSED LTP

EASTERN DIVISION LOCAL PLANS

PROPOSED EQUIPMENT REPLACEMENTS DUE TO CONDITION (138 KV BREAKERS)						
STATION	IN-SERVICE DATE		Firm	SIS	Article VII	Status
	2021 Plan	2023 Plan				
Burns	Completed (Dec 2022)	-	Y	N/A	N/A	In-Service
West Haverstraw	Dec 2022	Dec 2023	Y	N/A	N/A	Under Const.
West Nyack	-	Dec 2025	N	N/A	N/A	Design

PROPOSED LTP (Eastern Division)



- Transmission projects
- Capacitor Banks
- Breaker Upgrades

PROPOSED LTP

CENTRAL DIVISION LOCAL PLANS

GEOGRAPHIC COVERAGE : Portions of Orange County (NY)
 Portions of Passaic County (NJ)
DESIGN STANDARD: First Contingency (N-1)

PROJECT DESCRIPTION	IN-SERVICE DATE		Firm	SIS	Article VII	Status
	2021 Plan	2023 Plan				
Line 26 T/L Upgrade (138 kV)	June 2027	Dec 2028	N	Y	Y	Design
Upgrade of Line 841, 851 and 853 to 69 kV (West Point Area)	June 2025	Dec 2027	N	N/A	Y	Design
<i>Line 96 Rebuild</i>	June 2025	Dec 2027	N	N/A	N	Design

PROPOSED LTP

CENTRAL DIVISION LOCAL PLANS

PROPOSED TRANSMISSION CAPACITOR BANK INSTALLATIONS (32 MVARs)

STATION	IN-SERVICE DATE		Firm	SIS	Article VII	Status
	2021 Plan	2023 Plan				
West Warwick	Dec 2025	Dec 2027	N	N/A	N/A	Design
Forrest Avenue (formerly Woodbury)	Dec 2024	Dec 2026	N	N/A	N/A	Design
Blooming Grove	Dec 2023	Dec 2024	N	N/A	N/A	Design

PROPOSED LTP

CENTRAL DIVISION LOCAL PLANS

PROPOSED EQUIPMENT REPLACEMENTS DUE TO CONDITION (138 KV BREAKERS)						
STATION	IN-SERVICE DATE		Firm	SIS	Article VII	Status
	2021 Plan	2023 Plan				
West Milford	Dec 2025	Dec 2027	N	N/A	N/A	Design

PROPOSED LTP (Central Division)



PROPOSED LTP

WESTERN DIVISION LOCAL PLANS

GEOGRAPHIC COVERAGE : Portions of Orange County (NY),
 Portions of Sullivan County (NY)
DESIGN STANDARD: First Contingency (N-1)

PROJECT DESCRIPTION	IN-SERVICE DATE		Firm	SIS	Article VII	Status
	2021 Plan	2023 Plan				
Western Division 34.5 kV Upgrade to 69 kV	Various Stages Starting in December 2026	Various Stages starting in December 2026	N	N/A	N/A	Design

PROPOSED LTP

WESTERN DIVISION LOCAL PLANS

PROPOSED TRANSMISSION CAPACITOR BANK INSTALLATIONS (16 MVARS or 32 MVARS)

STATION	IN-SERVICE DATE		Firm	SIS	AVII	Status
	2021 Plan	2023 Plan				
Pocatello (New - 32)	June 2026	-	-	-	-	Withdrawn
Bullville (New – 16)	June 2027	Dec 2028	N	N/A	N/A	Design
Wurtsboro (New-16)	June 2023	Dec 2025	N	N/A	N/A	Design
Westtown (New – 32)	Dec 2025	Dec 2026	N	N/A	N/A	Design

PROPOSED EQUIPMENT REPLACEMENTS DUE TO CONDITION BREAKERS - NONE

STATION	IN-SERVICE DATE	
	2021 Plan	
	None	

PROPOSED LTP (Western Division)



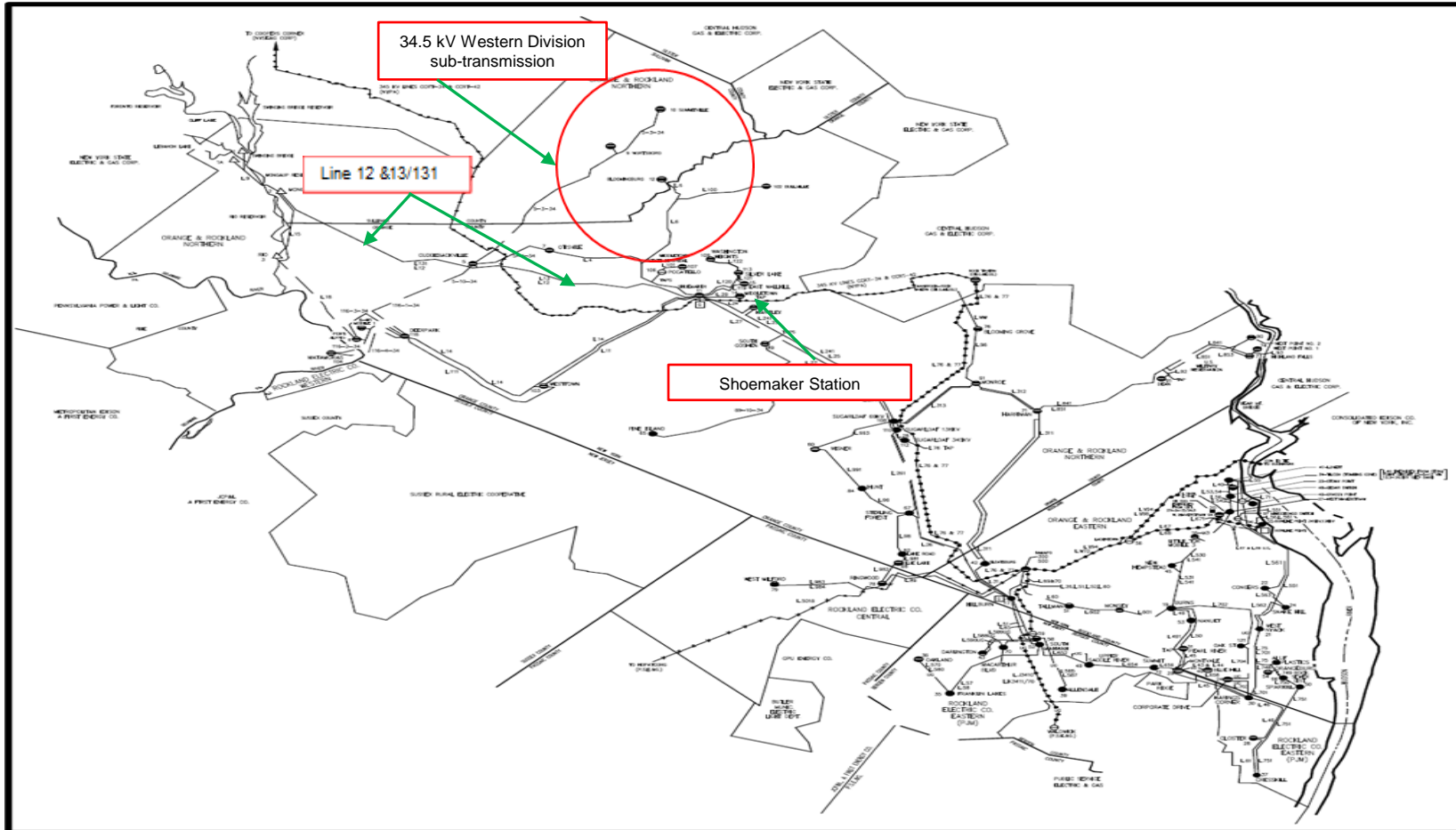
- Transmission projects
- Capacitor Banks
- Breaker Upgrades

CLCPA PROJECTS

PROJECT NAME	PROJECT DESCRIPTION	PROPOSED I/S DATE	STATUS
TL Lines 12 & 13/131*	Upgrade of 69kV Transmission Lines 12 & 13/131	2027	Design
Shoemaker Station Upgrade	New 138 kV and 69 kV air insulated stations	2028	Design
Western Division 34.5 kV System	Upgrade of 34.5 kV Western Division sub-transmission system	2029	Design

**Included in the 2022 through 2024 rate case*

CLCPA PROJECT LOCATIONS



O&R LTP LINK AND CONTACTS

1. LTP LINK

<https://www.oru.com/business-partners/transmission-planning>

2. Send questions/comments to:

ORUTransmissionPlanning@oru.com



Orange & Rockland